13. A method for encoding a sequence of video image frames comprising the steps of:

dividing a source sequence into a group of pictures, each group of pictures comprising an I-frame followed by a plurality of P-frames and B-frames,

dividing each I-frame, P-frame and B-frame into a plurality of spatially non-overlapping blocks of pixel data;

encoding a block in the I-frame independently from any other frames in the group of pictures;

predictively encoding a block in a P-frame, based on the I-frame positioned before the P-frame or a previous P-frame positioned before the P-frame;

bi-directionally predictively encoding a block in a B-frame, based on the I-frame positioned before the B-frame or the previous P-frame and the P-frame positioned after the B-frame;

deriving a scaled forward motion vector and a scaled backward motion vector for the block in the B-frame by scaling a motion vector of the block

predictively encoded in the P-frame positioned after the B-frame;

obtaining a final forward motion vector for the block in the B-frame by adding a delta motion vector to the scaled forward motion vector; and

obtaining a final backward motion vector for the block in the B-frame by adding the delta motion vector to the scaled backward motion vector.

14. A method for encoding a sequence of video image frames according to claim 13, wherein the deriving step includes

scaling of the forward and backward motion vectors is based on a temporal reference of the P-frame and B-frame.

15. A method for encoding a sequence of video image frames according to claim 13, further comprising the step of forming an encoded output, wherein the encoded output is a bitstream comprising:

temporal reference information for the B-frame and the P-frame;

motion vector information for the block in the P-frame;

quantized residual error information for the block in the P-frame;

delta motion vector information for the block in the B-frame; and

quantized residual error information for the block in the B-frame.

16. A method for encoding a sequence of video image frames according to claim 15, wherein

the output bitstream contains additional information indicating a presence of at least one of the delta motion vector information for the block in the B-frame; and the quantized residual error information for the block in the B-frame.